

Amendments to the Claims:

1. (currently amended) A method of mobile Internet Protocol communication between a private network and a roaming mobile terminal, said private network including a home agent for said roaming mobile terminal and a gateway through which said communication passes and which provides security protection for said private network, the mobile internet protocols of said communication including security association bundles each including a security association between said roaming mobile terminal and said gateway for inbound communication and another security association for outbound communication, the method comprising the steps of:

in response to a handover of communication, causing ~~an~~ a care-of IP address (MN Co @) of said roaming mobile terminal to change to a new care-of IP address (MN New Co @),

said roaming mobile terminal updates its inbound security association from said gateway so that it can receive packets sent to it with said new care-of IP address (MN New Co @) as destination,

said roaming mobile terminal sends a first signalling message with said home agent as destination in a secure tunnel to said gateway,

said first signalling message indicating said new care-of IP address (MN New Co @) in secure form to said home agent,

the inbound security association of said gateway from said roaming mobile terminal accepts said first signalling message without checking its source address,

said gateway forwards said first signalling message within said private network to said home agent,

said home agent checks the validity of said first signalling message and, if it is valid, updates its address data and sends a second signalling message to said gateway indicating said new care-of IP address (MN New Co @), and

said gateway updates its outbound security association with said roaming mobile terminal in response to the new care-of IP address (MN New Co @) indicated.

2. (currently amended) A method as claimed in claim 1, wherein communication between said roaming mobile node terminal and said gateway is in accordance with an IPsec protocol specification.
3. (currently amended) A method as claimed in claim 2, wherein communication between said gateway and said roaming mobile terminal is in accordance with an Encapsulating Security Payload protocol used in tunnel mode.
4. (currently amended) A method as claimed in claim 1, wherein a registration reply for said roaming mobile node terminal is included in said second signalling message.
5. (cancelled).
6. (cancelled).
7. (cancelled).
8. (cancelled).

9. (currently amended) A system for mobile Internet Protocol communication between a private network and a roaming mobile terminal, said private network including a home agent for said roaming mobile terminal and a gateway through which said communication passes and which provides security protection for said private network, the protocols of said communication including security association bundles each including a security association between said roaming mobile terminal and said gateway for inbound communication and another security association for outbound communication, the system comprising:

the roaming mobile terminal, in response to a handover of communication, causes an a care-of IP address (MN Co @) of said roaming mobile terminal to change to a new care-of IP address (MN New Co @), said roaming mobile terminal updates its inbound security association from said gateway so that it can receive packets sent to it with said new care-of IP address (MN New Co @) as destination, and said roaming mobile terminal sends a first signalling message with said home agent as destination in a secure tunnel to said gateway, said first signalling message indicating said new care-of IP address (MN New Co @) in secure form to said home agent,

the gateway, with the inbound security association of said gateway from said roaming mobile terminal, accepts said first signalling message without checking its source address, and forwards said first signalling message within said private network to said home agent,

the home agent checks the validity of said first signalling message and, if it is valid, updates its address data and sends a second signalling message to said gateway indicating said new care-of IP address (MN New Co @), and

the gateway updates its outbound security association with said roaming mobile terminal in response to the new care-of IP address (MN New Co @) indicated.

10.(currently amended) A system as claimed in claim 9, wherein communication between said roaming mobile node terminal and said gateway is in accordance with an IPsec protocol specification.

11.(currently amended) A system as claimed in claim 10, wherein communication between said gateway and said roaming mobile terminal is in accordance with an Encapsulating Security Payload protocol used in tunnel mode.

12.(currently amended) A system as claimed in claim 9, wherein a registration reply for said roaming mobile node terminal is included in said second signalling message.